STIC Search Results Feedback Form

EIC 2100

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact:***

Alyson Dill, EIC 2100 Team Leader
272-3527, RND 4B28

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 2133*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (Journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC2100 RND, 4B28

SEARCH NOTES

[File 15] **ABI/Inform(R)** 1971-2007/Aug 15

[File 9] **Business & Industry(R)** Jul/1994-2007/Aug 13

[File 635] **Business Dateline(R)** 1985-2007/Aug 15

[File 610] **Business Wire** 1999-2007/Aug 17

File 610: File 610 now contains data from 3/99 forward. Archive data (1986-2/99) is available in File 810.
[File 810] **Business Wire** 1986-1999/Feb 28

[File 647] **CMP Computer Fulltext** 1988-2007/Sep W2

[File 674] **Computer News Fulltext** 1989-2006/Sep W1

File 674: File 674 is closed (no longer updates).
[File 696] **DIALOG Telecom. Newsletters** 1995-2007/Aug 16

[File 275] **Gale Group Computer DB(TM)** 1983-2007/Jul 24

[File 47] **Gale Group Magazine DB(TM)** 1959-2007/Aug 06

[File 621] **Gale Group New Prod.Annou.(R)** 1985-2007/Aug 13

[File 636] **Gale Group Newsletter DB(TM)** 1987-2007/Aug 16

[File 16] **Gale Group PROMT(R)** 1990-2007/Aug 16

[File 160] **Gale Group PROMT(R)** 1972-1989

[File 148] **Gale Group Trade & Industry DB** 1976-2007/Aug 14

File 148: The CURRENT feature is not working in File 148. See HELP NEWS148.
[File 624] **McGraw-Hill Publications** 1985-2007/Aug 16

File 624: Homeland Security & Defense and 9 Platt energy journals added Please see HELP NEWS624 for more
[File 369] **New Scientist** 1994-2007/Jul W5

[File 484] **Periodical Abs Plustext** 1986-2007/Jul W5

[File 613] **PR Newswire** 1999-2007/Aug 17

File 613: File 613 now contains data from 5/99 forward. Archive data (1987-4/99) is available in File 813.
[File 813] **PR Newswire** 1987-1999/Apr 30

[File 634] **San Jose Mercury** Jun 1985-2007/Aug 15

[File 370] **Science** 1996-1999/Jul W3

File 370: This file is closed (no updates). Use File 47 for more current information.
[File 553] **Wilson Bus. Abs.** 1982-2007/Aug

[File 98] **General Sci Abs** 1984-2007/Jul

Set Items Description
S1 244 S (STEINER(1W)(TREE? ? OR NODE OR POINT? ? OR VERTICE? ?)) OR (S()STEINER(1W)(TREE? ? OR NODE OR POINT? ? OR VERTICE? ?)) OR NASH()WILLIAMS()TUTTE(2N)THEOR????? OR ((NASH(1W)WILLIAMS(1W)TUTTE)(2N)THEOR?????)
S2 2821 S ((STEINER(1W)TREE? ? OR TREE? ? OR NODE OR POINT? ? OR VERTICE? ?)(5N)(SET OR SUBSET OR SUB()SET))(10N)(NODE OR STRUCTURE? ?)
S3 261366 S ((STEINER(1W)TREE? ? OR TREE? ? OR NODE OR POINT? ? OR VERTICE? ?)(10N)(CLIENT? ? OR ENTIT??? OR NODE))
S4 12 S S1(20N)(CREAT??? OR GENERAT???)
S5 13 S (S1(10N)(MERG??? OR PACK??? OR TOGETHER OR MIX??? OR BLEND??? OR BINDING OR BOUND OR COMBIN??? OR CONSOLIDAT??? OR COMPRESS??? OR CONDENS??? OR JOIN?????))
S6 148 S (STEINER(1W)TREE? ?)

S7 10 S (S1(5N)(MERG??? OR PACK??? OR TOGETHER OR BINDING OR COMBIN??? OR CONSOLIDAT??? OR JOIN?????))
S8 18 S (S1(20N)(MERG??? OR PACK??? OR TOGETHER OR MIX??? OR BLEND??? OR BINDING OR BOUND OR COMBIN??? OR CONSOLIDAT??? OR COMPRESS??? OR CONDENS??? OR JOIN?????))
S9 17 RD (unique items)

?

Higher relevance

d

Subject summary

? t /3,k/all
9/3,K/1 (Item 1 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

03180443 939710741
An Algorithmic Framework for the Exact Solution of the Prize-Collecting Steiner Tree Problem
Ljubic, Ivana; Weiskircher, Rene; Pferschy, Ulrich; Klau, Gunnar W; Mutzel, Petra; Fischetti, Matteo
Mathematical Programming v105n2-3 pp: 427
Feb 2006
ISSN: 0025-5610 **Journal Code:** MTHP
Abstract:

...implementation of a branch-and-cut algorithm based on a directed graph model where we **combine** several state-of-the-art methods previously used for the **Steiner tree** problem. Our method outperforms the previously published results on the standard benchmark set of problems...

9/3,K/2 (Item 2 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

03131968 1079244711
Approximations and Lower Bounds for the Length of Minimal Euclidean Steiner Trees
Rubinstein, J H; Weng, J; Wormald, N
Journal of Global Optimization v35n4 pp: 573-592
Aug 2006
ISSN: 0925-5001 **Journal Code:** GLPT
Abstract:

We give a new lower **bound** on the length of the minimal **Steiner tree** with a given topology **joining** given terminals in Euclidean space, in terms of toroidal images. The lower **bound** is equal to the length when the topology is full. We use the lower **bound** to prove bounds on the "error" e in the length of an approximate **Steiner tree**, in terms of the maximum deviation d of an interior angle of the tree from...

9/3,K/3 (Item 3 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

03112162 1095338691
STEINER TREE PROBLEMS WITH PROFITS
Costa, Alysson M; Cordeau, Jean-Francois; Laporte, Gilbert
INFOR v44n2 pp: 99-108, 112-115
May 2006
ISSN: 0315-5986 **Journal Code:** IOR
Word Count: 8076
Text:

...19: 549-567.
Engevall, S., Gothe-Lundgren, M., and Varbrand, P. (1998). A stronger lower **bound** for the node weighted **Steiner tree** problem, Networks 31: 11-17.
Feigenbaum, J., Papadimitriou, C. H., and Shenker, S. (2001). Sharing...
...I., Moser, A., Mutzel, P., Neuner, P., Pferschy, U., Raidl, G., and Weiskircher, R. (2004). **Combining** a memetic algorithm with integer programming to solve the prize-collecting **Steiner tree** problem, Springer Lecture Notes in Computer Science 3102: 1304-1315.
Klau, G. W., Ljubic, I...

9/3,K/4 (Item 4 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

02875197 798937791
The implications of Robert L. Steiner s work for merger analysis
Nelson, Philip; Hurdle, Gloria; Su, Tessie

Antitrust Bulletin v49n4 pp: 1013-1042
Winter 2004
ISSN: 0003-603X **Journal Code:** ANB
Word Count: 10103
Text:

...open question as to how frequently this type of Type III scenario will occur. As **Steiner points** out, a **merger** is unlikely to lead to significant changes in advertising and promotional efforts in "mature, heavily...
...and provide insights into the businessmen's understanding of about market elasticities).65
In sum, **Steiner points** out the crucial problem of using retail pricing data to assess **mergers** between manufacturers of consumer goods. While this problem is recognized by some economists and antitrust...

9/3,K/5 (Item 5 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

02875192 798937731
Steiner s two-stage vision: implications for antitrust analysis
Comanor, William S
Antitrust Bulletin v49n4 pp: 999-1012
Winter 2004
ISSN: 0003-603X **Journal Code:** ANB
Word Count: 4345
Text:

...The relevant issue again is whether distribution margins would remain unchanged in the new circumstances.
Steiner points to the situation of a **merger** between two branded but minimally advertised product manufacturers, and suggests that this type of **merger** might not lead to higher prices. If a newly combined firm sought to raise prices...

9/3,K/6 (Item 6 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

02766503 654922801
Packing Steiner trees with identical terminal sets
Kaski, Petteri
Information Processing Letters v91n1 pp: 1-5
Jul 16, 2004
ISSN: 0020-0190 **Journal Code:** IPL
Packing Steiner trees with identical terminal sets
Abstract:

This paper investigates the variant of the **Steiner tree packing** problem in which all the terminal sets are identical.

9/3,K/7 (Item 7 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

02362454 111998764
Heuristic algorithms for packing of multiple-group multicasting
Wang, Chu-Fu; Liang, Chun-Teng; Jan, Rong-Hong
Computers & Operations Research v29n7 pp: 905-924
Jun 2002
ISSN: 0305-0548 **Journal Code:** CRO
Abstract:

...sessions under a capacity limited constraint is considered. This problem is formulated as a tree **packing** problem. Two heuristic algorithms, **Steiner-tree**-based heuristic (STH) algorithm and cut-set-based heuristic (CSH) algorithm, are presented for solving...

9/3,K/8 (Item 8 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

02317254 109582962
A branch-and-price algorithm for the Steiner tree packing problem
Jeong, Gue-woong; Lee, Kyungsik; Park, Sungsoo; Park, Kyungchul
Computers & Operations Research v29n3 pp: 221-241
Mar 2002
ISSN: 0305-0548 **Journal Code:** CRO
A branch-and-price algorithm for the Steiner tree packing problem
Abstract:

This paper deals with the **Steiner tree packing** problem. For a given undirected graph G=(V,E) with positive integer capacities and non...

9/3,K/9 (Item 9 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

00780605 94-29997
Approximating the tree and tour covers of a graph
Arkin, Esther M; Halldorsson, Magnus M; Hassin, Refael
Information Processing Letters v47n6 pp: 275-282
Oct 18, 1993
ISSN: 0020-0190 **Journal Code:** IPL
Abstract:

...algorithms are provided for both problems. An interesting feature of the algorithms is how they **combine** approximations of other problems, namely the weighted vertex cover, traveling salesman, and **Steiner tree** problems.

9/3,K/10 (Item 10 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

00538535 91-12879
Lower Bounds for Rectilinear Steiner Trees in Bounded Space
Snyder, Timothy Law
Information Processing Letters v37n2 pp: 71-74
Jan 31, 1991
ISSN: 0020-0190 **Journal Code:** IPL
Abstract:

...Hanan Theorem to keep Steiner points out of the picture when constructing a minimal rectilinear **Steiner tree**. It is noted that the dimension d does not appear in the present **bound** and that perhaps the methods of Smith (1988) could improve the present bounds by involving...

9/3,K/11 (Item 11 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

00521471 90-47228
Directed Steiner Tree Problem on a Graph: Models, Relaxations, and Algorithms
Dror, Moshe; Gavish, Bezalel; Choquette, Jean
INFOR v28n3 pp: 266-281
Aug 1990
ISSN: 0315-5986 **Journal Code:** IOR
Abstract:

...the problem. Computational tests on 18 problems used by Beasley (1984, 1987) for testing undirected **Steiner tree** problems show that one of the algorithms generates lower **bound** values that are close to the optimal solutions. The nonfeasible solutions generated by the Lagrangean...

9/3,K/12 (Item 12 from file: 15) Links
Fulltext available through: ScienceDirect
ABI/Inform(R)

00433561 89-05348
Worst-Case Performance of Rayward-Smith's Steiner Tree Heuristic
Waxman, Bernard M.; Imase, Makoto
Information Processing Letters v29n6 pp: 283-287
Dec 8, 1988
ISSN: 0020-0190 **Journal Code:** IPL
Abstract:

...the minimum distance tree heuristic. An analysis proves that the worst-case performance of the **Steiner tree** approximation algorithm by RS is within 2 times optimal and that 2 is the best **bound** in the sense that there are instances for which RS will do worse than any...

9/3,K/13 (Item 1 from file: 275) Links
Gale Group Computer DB(TM)

02565740 **Supplier Number:** 80896951
A branch-and-price algorithm for the Steiner tree packing problem.(Statistical Data Included)
Jeong, Gue-woong; Lee, Kyungsik; Park, Sungsoo; Park, Kyungchul
Computers & Operations Research , 29 , 3 , 221(21)
March , 2002
Document Type: Statistical Data Included
ISSN: 0305-0548
Language: English **Record Type:** Abstract
A branch-and-price algorithm for the Steiner tree packing problem.(Statistical Data Included)
Abstract: A branch-and-price algorithm is developed for the Steiner tree packing problem. The results show the algorithm can compete with the cutting plane algorithm for sizing...

9/3,K/14 (Item 1 from file: 148) Links
Gale Group Trade & Industry DB

0022059896 **Supplier Number:** 161502268 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Properties of a generalized source-to-all-terminal network reliability model with diameter constraints *.
Cancela, Hector; Petingi, Louis
Omega , 35 , 6 , 659(12)
Dec , 2007
ISSN: 0305-0483
Language: English
Record Type: Fulltext; Abstract
Word Count: 9256 **Line Count:** 00680

...each arc is assigned a weight corresponding to the delay to be experienced by a **packet** traveling along this arc.
Extensive research has been done in this area (see (5-11)) in order to construct **Steiner trees** containing the source s and the destination nodes (i.e. terminal nodes), in such a way that a **packet** traveling from the source to a terminal node meets the delay constraints.
Other related reliability...

9/3,K/15 (Item 1 from file: 369) Links
Fulltext available through: ScienceDirect
New Scientist

00101756 14319322.500 **(USE FORMAT 7 OR 9 FOR FULLTEXT)**
Science: An angle on how to join up the dots
WATSON, ANDREW; MELBOURNE
New Scientist , vol. 143 , no. 1932 , p. Page 15
July 2, 1994
Language: English **Record Type:** Fulltext **Doc. Type:** Journal
Word Count: 987 **(USE FORMAT 7 OR 9 FOR FULLTEXT)**
Text:

...connect them with the shortest possible path, making use where necessary of additional points called **Steiner vertices**. For example,

the shortest path **joining** all the vertices of the triangle shown in the Figure, meet at a new point...

...NP-hard.
The Steiner problem becomes 'easy' if the pattern showing which points will be **joined** to which is known, **together** with the rough position of the **Steiner vertices**. This is the same as knowing in advance the overall layout of the pieces in...
...and Applied Mathematics Journal of Discrete Mathematics, relies on the fact that the three lines **joining** at an introduced **Steiner point** always meet at 120 degrees. The researchers begin by classifying the few ways a Steiner...

9/3,K/16 (Item 1 from file: 484) **Links**
Periodical Abs Plustext

06888152 (USE FORMAT 7 OR 9 FOR FULLTEXT)
"Mathematical Games" and Beyond: Part II of an Interview with Martin Gardner
Albers, Don
College Mathematics Journal (PCMJ) , v36 n4 , p 301-314
Sep 2005
ISSN: 0746-8342 **Journal Code:** PCMJ
Document Type: Interview
Language: English **Record Type:** Fulltext; Abstract
Word Count: 6630
Text:

...the dissection in his classic, Introduction to Geometry.) (2) I found a minimal network of **Steiner trees** that **join** all the corners of a chessboard. (3) I constructed a bicolor proof that every serial...

9/3,K/17 (Item 2 from file: 484) **Links**
Periodical Abs Plustext

04848430 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Voices in the junior high school classroom: Lost and found
Hamblin, Lynda
English Journal (GENJ) , v90 n1 , p 80-87
Sep 2000
ISSN: 0013-8274 **Journal Code:** GENJ
Document Type: Feature
Language: English **Record Type:** Fulltext; Abstract
Word Count: 5205
Text:

...below" (107). These, too, become a part of the voice of her poems. As John-**Steiner points** out "Remembering such carefully observed details, writers choose a starting point for their intricate task of weaving **together** resonant language with the themes of their intellectual and emotional concerns" (127).
Again, it is...